Baltimore, MD Chesapeake Bay TMDL Public Meeting Summary

December 8, 2009

Maryland Department of the Environment Office 1800 Washington Blvd., Suite 530 Baltimore, Maryland 21230

Agenda	page 2
Attendee Details	page 3
Power Point Presentation	page 4
Questions Answered	page 34
Questions Submitted	page 37
Comments	nage 41

Agenda

- ➤ Welcome, introductions, and meeting logistics Maryann Lisanti, Harford County Council (5 minutes)
- > EPA presentation on the Chesapeake Bay TMDL and EPA expectations Richard Batiuk and Bob Koroncai, EPA (40 minutes)
- Next Steps Richard Eskin, MDE (15 minutes)
- Public comments, questions and answers Panel moderated by Maryann Lisanti (60 minutes)
- > Adjourn

Attendee Detail

Webinar-Registered: 147

Webinar-Attended: 120

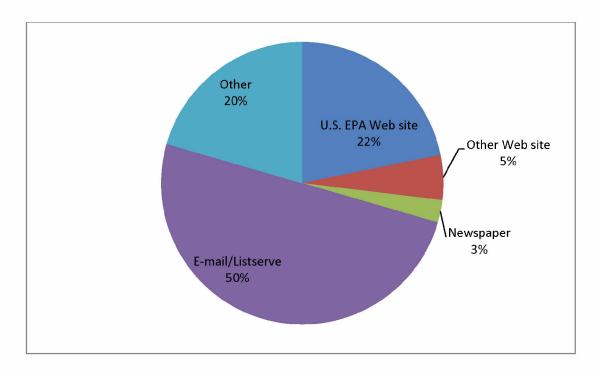
On-Site: 160

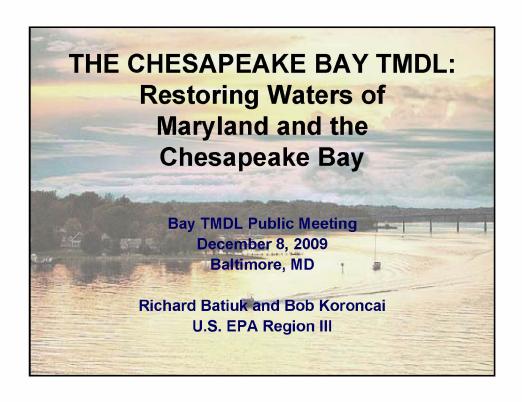
Total Live Attendees: 280

Registration Question:

How did you hear about this Meeting?

- E-mail/Listserve (39)
- U. S. EPA Web Site (17)
- Other (16)
 - Word of Mouth (3)
 - MDE (2)
 - MNCBIA (2)
 - UWAG
 - CAC
 - BPA
- Other Web Site _____(4)
 - MDE Web site (2)
 - HBAM
- Newspaper (2)







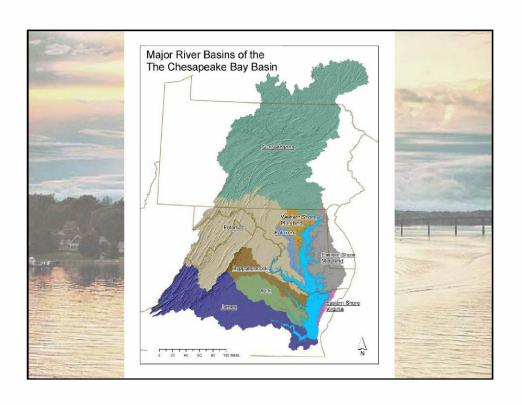


AGENDA

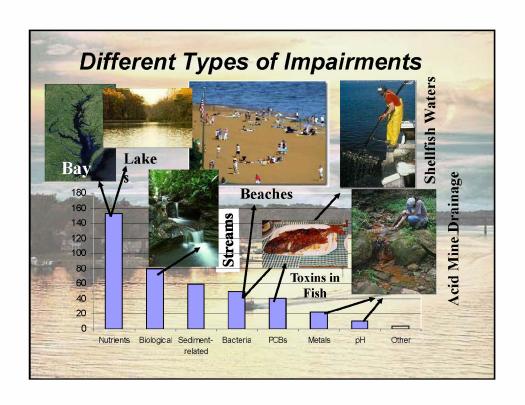
- Welcome, introductions, and meeting
 logistics Maryann Lisanti, Harford County Council (5 minutes)
- EPA presentation on the Chesapeake Bay
 TMDL and EPA expectations Richard Batiuk
 and Bob Koroncai, EPA (40 minutes)
- Next Steps Richard Eskin, MDE (10 minutes)
- Public comments, questions and answers –
 Panel moderated by Maryann Lisanti (60 minutes)
- Adjourn

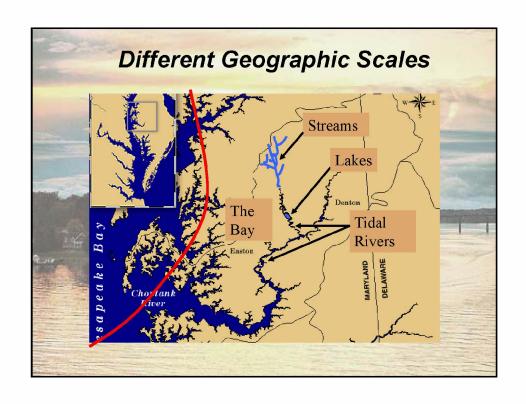
Panel to Address Public Comments

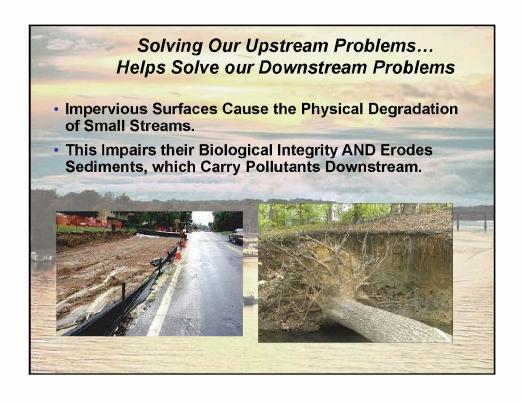
- Moderator: Maryann Lisanti, Harford County Council
- > EPA: Richard Batiuk and Bob Koroncai
- MD Department of the Environment:
 Rich Eskin
- MD Department of Natural Resources:
 Frank Dawson
- MD Department of Agriculture:
 John Rhoderick



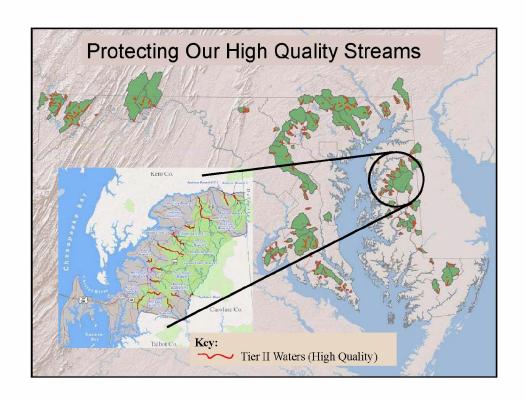


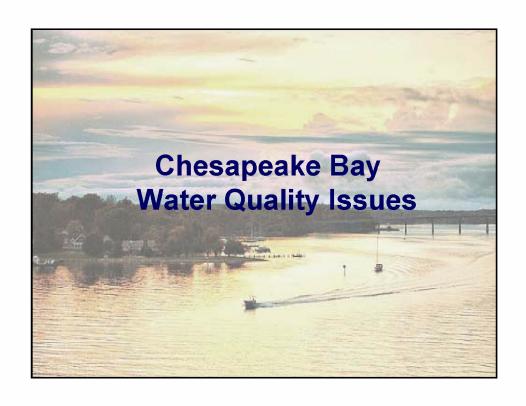


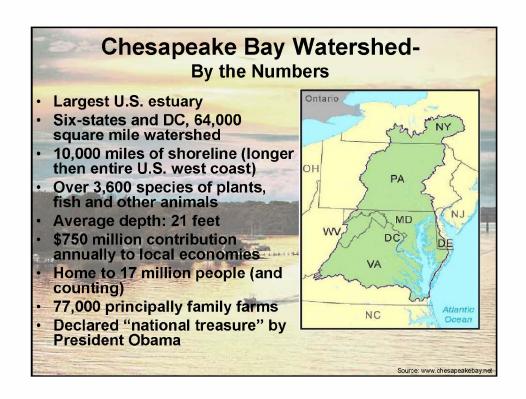


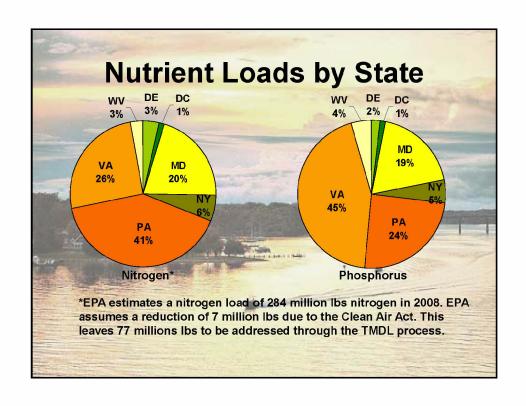


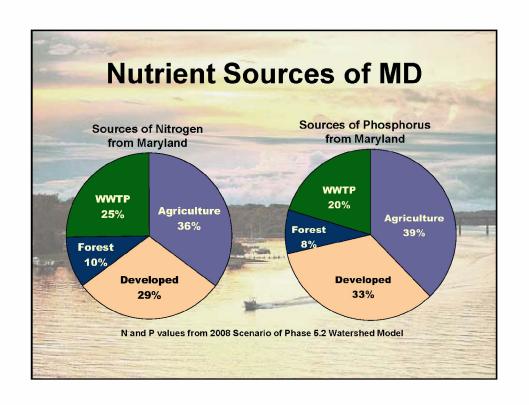


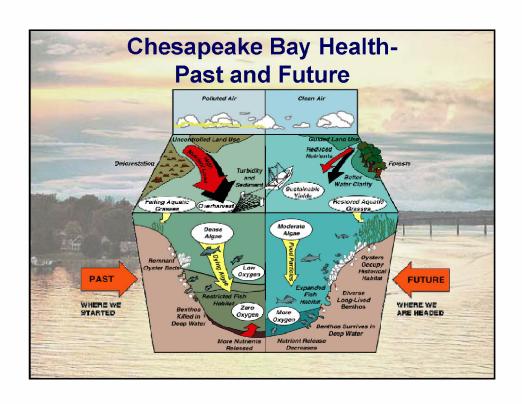


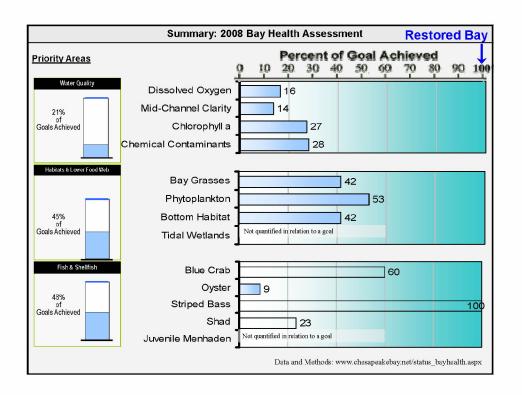


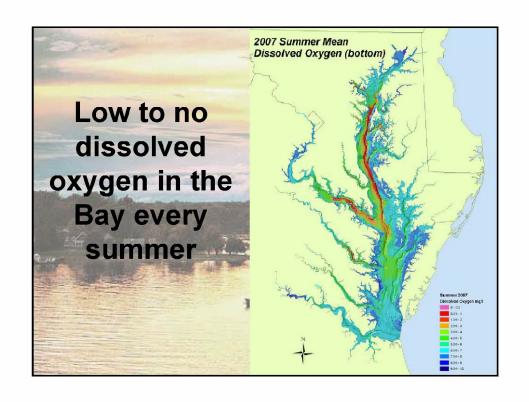


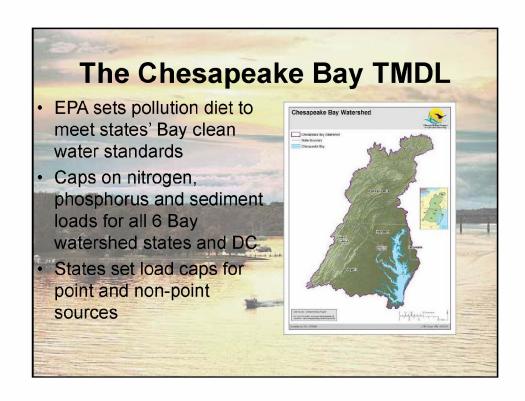


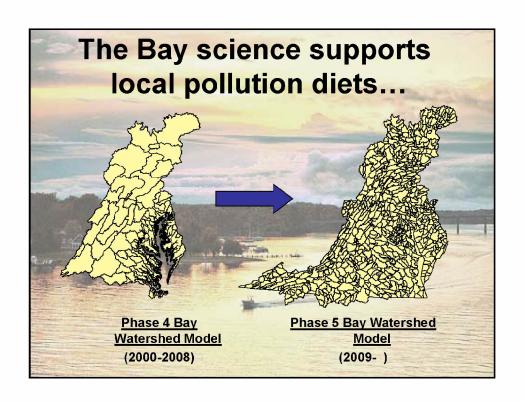


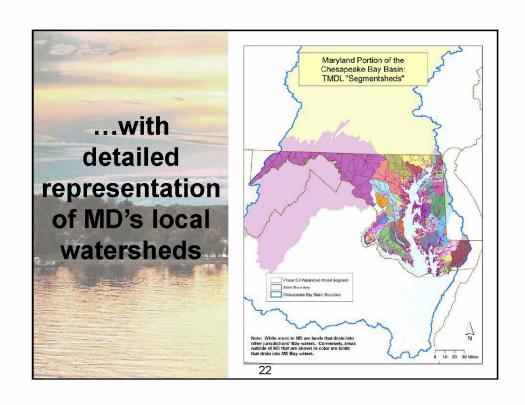


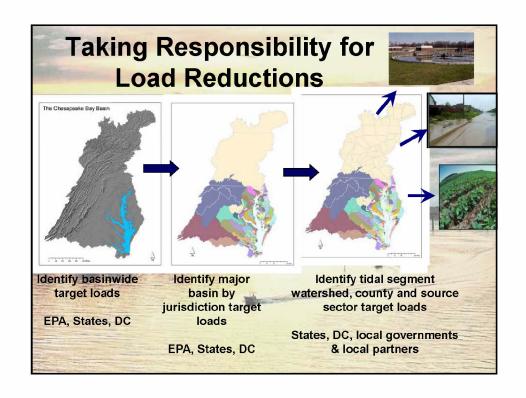


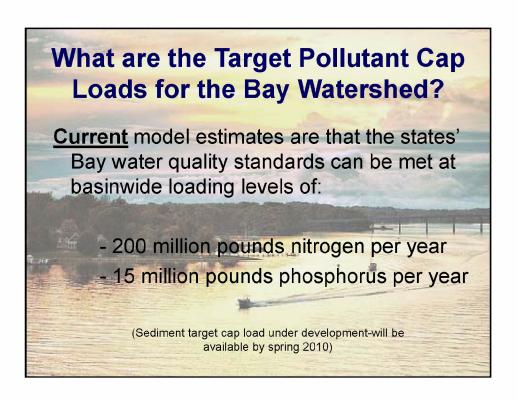


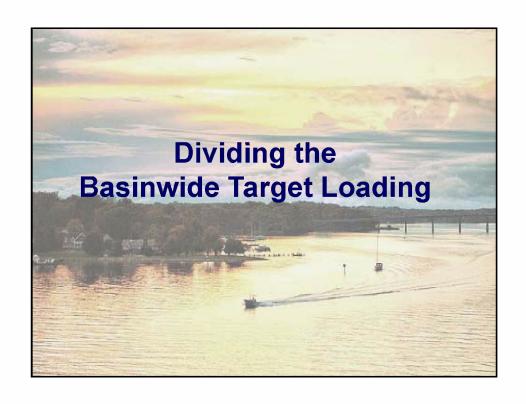






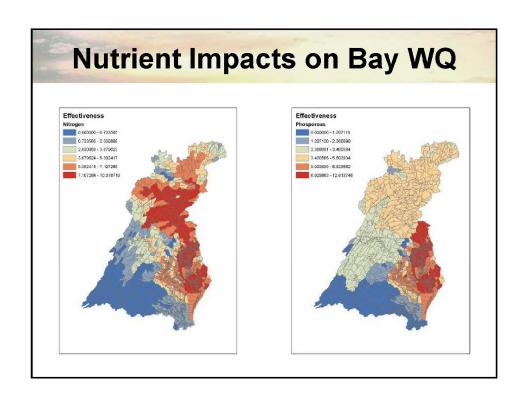


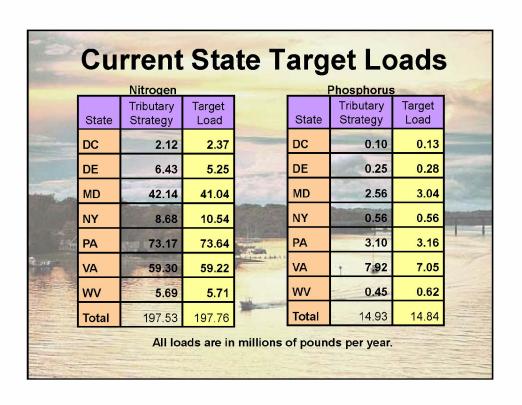


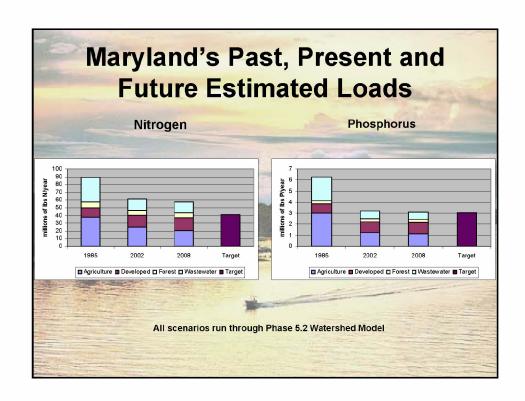


Guidelines for Distributing the Basinwide Target Loads

- Water quality and living resource goals should be achieved.
- Waters that contribute the most to the problem should achieve the most reductions (on a per pound basis).
- All previous reductions in nutrient loads are credited toward achieving final cap loads.

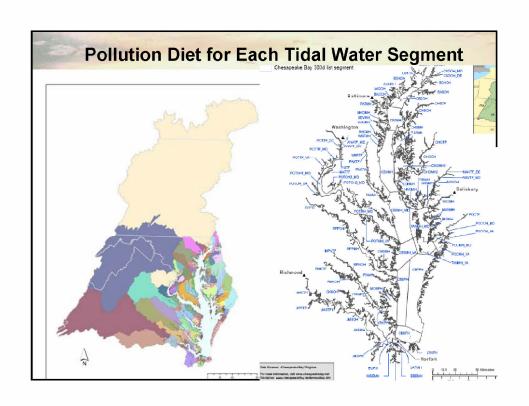


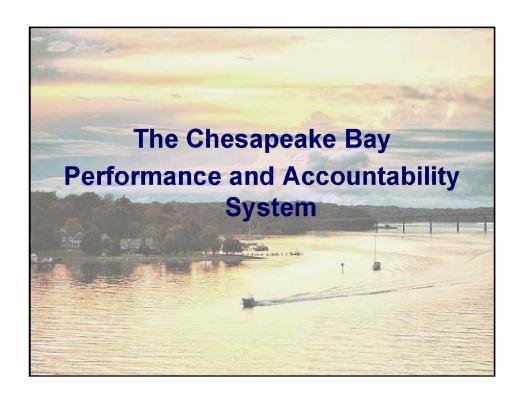


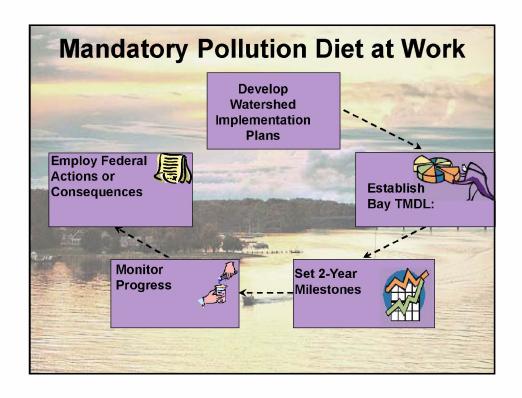


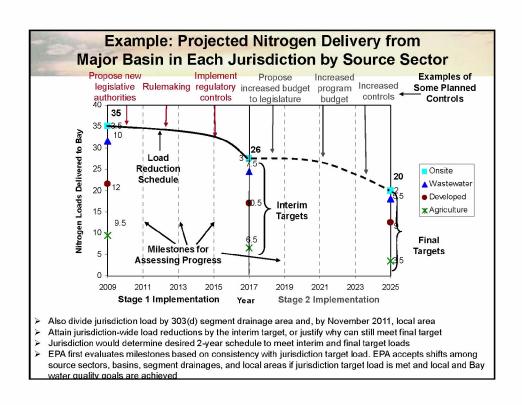
Target Load Refinements

- If States' Bay Water Quality Standards can still be achieved...
 - The State may exchange nitrogen and phosphorus target loads within a basin; and/or
 - The State may exchange nitrogen and phosphorus loads from one basin to another within the State.







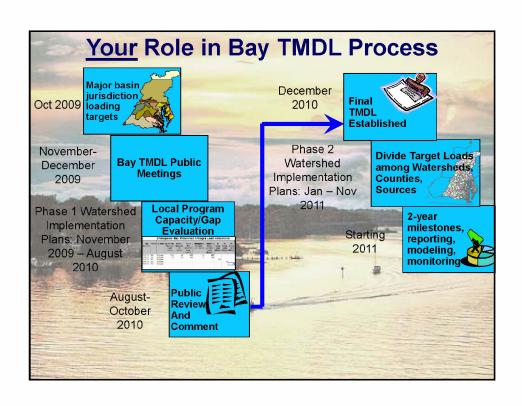


Federal Consequences

- Directed at states not achieving expectations
- Will be outlined in an EPA letter this fall. May include:
 - Assigning more stringent pollution reductions to regulated point sources (e.g., wastewater, stormwater, CAFOs)
 - Objecting to state-issued NPDES permits
 - Limiting or prohibiting new or expanded discharges (e.g., wastewater, stormwater) of nutrients and sediment
 - Withholding, conditioning or reallocating federal grant funds

Bay TMDL- Presidential Executive Order Connections

- Create Federal Leadership Committee
- Create the Performance and Accountability Framework
- Expand regulatory tools for CAFO's and urban and suburban runoff
- Improve nutrient and sediment controls on federal lands and roads
- Target farm conservation measures at high priority areas





Further Information

- Chesapeake Bay TMDL web site
 www.epa.gov/chesapeakebaytmdl
- U.S. EPA Region 3 Contacts
 - Water Protection Division
 - Bob Koroncai
 - 215-814-5730; koroncai.robert@epa.gov
 - Jennifer Sincock (sincock.jennifer@epa.gov)
 - Chesapeake Bay Program Office
 - Rich Batiuk
 - 410-267-5731; batiuk.richard@epa.gov
 - Katherine Antos (antos.katherine@epa.gov)



Department of the Environment

Understanding and Moving to Implementation of the Bay TMDL: WIPs and Milestones

Richard A. Eskin, Ph.D. Director, Science Services Administration

DECEMBER 8, 2009



MDE

Maryland's Allocation Process (Overview)

- MD must allocate draft major basin loads to State's Bay <u>segmentsheds</u>* by source sector for Phase 1 Watershed Implementation Plan (WIP)
- Identify Point Source (PS) and Nonpoint Source (NPS) target loads for each impaired segment drainage area:

Per EPA allocation . method

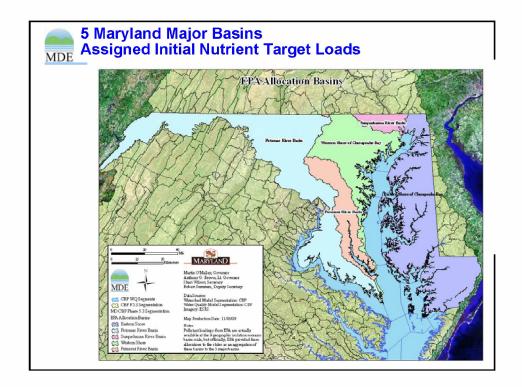
> set targets based on controllable loads per sector
> assess equitable levels of effort

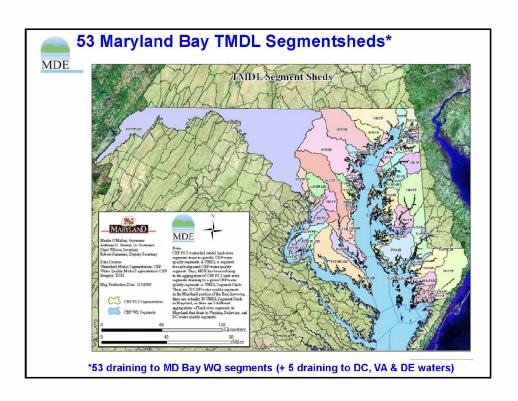
> consider relative effectiveness of segmentsheds per change in DO

- Consider current regulations (ENR strategy, MS4 permit requirements, etc.)
- Report final allocations through web-based GIS

*Specific geographic land area that drains to a Bay water quality segment







Maryland Major Basins	2008 N Load* (million lbs/yr)	N Target Load (million lbs/yr)	2008 P Load* (million lbs/yr)	P Target Load (million lbs/yr)
Susquehanna	1.2	0.8	0.05	0.05
Eastern Shore	19.0	12.8	1.14	1.24
Western Shore	15.0	10.2	0.79	0.62
<u>Patuxent</u>	3.5	3.2	0.28	0.24
Potomac	18.4	14.1	0.84	0.89
MD TOTAL	57.1	41.0	3.09	3.04



Maryland's Allocation Process (Stages)

Stage 1: Develop allocation method using Phase 5.2 watershed model and EPA allocation approach

Stage 2: Identify members and communicate responsibilities for PS and NPS Sector Teams

- > PS Sector Team: check, confirm individual PS target loads
- ➤ Using Phase 5.3, the allocation method, and confirmed PS estimates, subtract from total target load to estimate NPS target load for each segmentshed
- > NPS Sector Team: review NPS target loads





Maryland's Allocation Process (Stages) -MDE cont'd.

Stage 3: Source Sector Team discussions

- ➤ Identify loading gap closure options to finalize scenario that meets working target loads provided by EPA
- ➤ Meetings with local governments and stakeholders
- Finalize preliminary Phase 1 WIP (due June 1, 2010)

Stage 4: Begin work on Phase 2 WIP

Detailed implementation plan with specific controls at county/sector level





Possible Source Sector Categories

POINT SOURCES

- Major WWTP (individual)
- Minor WWTP (aggregate)
- Major Industrial (individual)
- Minor Industrial (aggregate)
- Dredged material placement sites
- · CAFOs
- Construction
- Regulated urban stormwater
- Mines (sediment impacts)

<u>NONPOINT</u> SOURCES

- Agriculture
- Septics
- Forest
- Harvested forest
- Non-regulated urban stormwater





WIP Development: Eight Required Elements MDE (per EPA Nov. 4 Letter)

- Interim (2017) and Final (2025) Nutrient and Sediment Target Loads (by major basin in each State)
- Current Loading Baseline and Program Capacity
- 3. Account for Growth and Development anticipated 2011-2025
- Gap Analysis
- Commitment and Strategy to Fill Gaps
- 6. Tracking and Reporting Protocols
- 7. Contingencies for Slow or Incomplete Implementation
- Appendix with **Detailed Targets** and **Schedule**:

SEE NEXT SLIDE!



WIP Development: Required Elements (continued)

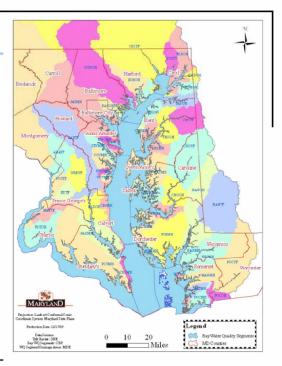
- 8. Appendix with Detailed Targets and Schedule:
 - a. Interim and final load targets by **segmentshed and source sector**--and identify amount and location of loads from individual or, as necessary, aggregate point sources *EPA will use in determining WLAs and LAs for Bay TMDL*
 - b. Reduction schedule comprising **2-year milestone target loads** at the scale of each major basin within the State *EPA will use to assess if milestones are on schedule to meet interim and final goals*
 - c. November 2011 Update (Phase 2): Loads divided by local area (co-seg) and controls to meet 2017 interim target load (as well as specific 2-year milestone commitments)

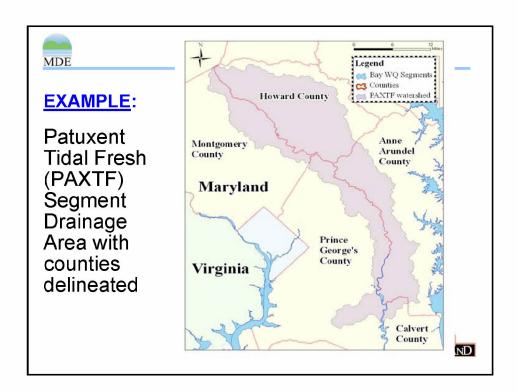


Phase 2 WIP:

County-Segment (Co-Seg) Allocations

- •Bay Water Quality Segmentsheds intersected by Local Jurisdiction boundaries
- •Draft due June 1, 2011
- •Final due Nov. 1, 2011







MD's Accelerated Nitrogen and Phosphorous Goals

2-Year Milestones: A New Approach

• Short-term two year "milestones" based on increasing 1985-2007 rate of implementation to achieve what is needed by 2020.

➤ Overall Nitrogen Reduction by 2020:

15.95 M lbs = (1.25 M lbs/yr)

>Overall Phosphorous Reduction by 2020:

840,000 lbs = (64,615 lbs/yr)

- · Explicit commitments, contingency plans
- · Will become part of Bay TMDL WIPs



MDF

2011 Urban Milestones

- ENR: Reduce N 740,000 lbs/yr, P 39,000 lbs/yr
- Blue Plains BNR upgrade: 190,000 lbs/yr
- Stormwater Management Retrofits: 90,000 acres
- Required septic retrofits in Critical Area: 1,080 systems
- Voluntary septic retrofits (outside of Critical Area): 1,920 systems
- Maryland Healthy Air Act: Reduce N 305,800 lbs/yr





2011 Non-Urban Milestones

Agriculture

- Cover crops: 460,000 acres/yr
- NMP enforcement: 100,000 acres
- Soil Conservation and Water Quality Plans:
 257,000 acres
- Manure Transport: 10,000 tons/yr

Natural Filters

- Grass and forest buffers: 13,000 acres
- Wetland Restoration: 1,700 acres





Bay TMDL and WIP Schedule

November 2009 Basin-jurisdiction target loads

December 2009 Preliminary EPA Public Meetings

- Tuesday, Dec. 8 - 2:30-4:30 PM - MDE

- Friday, Dec. 11 - 1:30-3:30 PM - Chesapeake College

Preliminary Phase 1 Watershed June 1, 2010

Implementation Plans

August 1, 2010 Draft Phase 1 Watershed

Implementation Plans





TMDL/WIP Schedule, continued

August 15-October 15, 2010

Public Comment Period for Draft Bay TMDL and **Draft Watershed Implementation Plans**

December 31, 2010

Final TMDL and Phase 1 WIPs Approved

June 1, 2011

Draft Phase 2 WIPs with Local Allocations and Specific Controls

November 1, 2011

Final Phase 2 WIPs





Maryland Department of the Environment

Science Services Administration Richard A. Eskin, Ph.D., Director

Tom Thornton, TMDL Review Coordinator TMDL Technical Development Program 410-537-3656 tthornton@mde.state.md.us

1800 Washington Boulevard | Baltimore, MD 21230-1718 410-537-3000 | TTY Users: 1-800-735-2258 www.mde.state.md.us







Questions Answered

Questions Answered (in the order in which they were asked):

Note: The letter indicates the source of each question. An "A" indicates that the question was submitted by the live audience. The "W" indicates that the question was submitted through the webinar. The cards were pre-numbered to easily identify the question once they were submitted. These questions are in the order in which they were asked. Some questions were rewritten for clarity. The rewritten questions are indicated, as are the original submitted questions.

W2: The object of the game should be to reduce both nitrogen and phosphorus loads from all states into the Bay. Why has EPA allowed some states or some parts of states to increase their phosphorus loads, like DC and other parts of the Eastern Shore? Everyone should be driving toward a lower goal – a greater reduction in Nitrogen and Phosphorus. Please Explain. Thanks – Dan Wilson

A31a: The Act is very clear; it is the responsibility of the state to establish TMDLs. EPA's role is to review and approve the TMDLs developed by the state. If the EPA disapproves the TMDL, then EPA must establish the TMDL. The statute does not provide authority for EPA to conduct a TMDL independent of a disapproval action or at the request of the state. Nor does it provide the authority for EPA to do part of the TMDL while forcing the state via threats of "consequences" to develop wasteload allocations. Please clearly explain how the Act provides authority for the current process EPA is following.

A31b: At the Public Meeting held in Washington, DC on November 16, it was stated that all questions and their associated answers would be posted on the EPA Web site. When can we expect questions and answers provided a these public meetings to be posted?

Rewritten Question (A36): Will there be a sediment TMDL? What is the process for allocating sediment loads?

W3: Does EPA plan to attach any federal funds to this executive order that would reward performance when goals are achieved or exceeded? Thanks - Dan Wilson

W4: We are an existing NPDES industrial permit holder. Under the previous Cap Strategy, we are not given a nutrient allocation because we had never discharged because we are unable to meet our permit limits. We do not want to be left out again under the TMDL allocation program. How can we become part of the process? We need a nutrient load allocation to allow us to discharge.

A30: Mattawoman Creek has an EPA-approved TMDL. It is four years old. During that time, permitting agencies have not used this important tool. Why will the TMDL work for the Bay? It is not working to help Mattawoman Creek.

A46: Cleaning up pollution from the past is one thing; change and growth are something else. How will major policy decisions be considered that significantly impact future loads such as BRAC; incentivizing smart growth (especially redevelopment in Baltimore City and transportation decisions (building a 3rd Bay Bridge)? These decisions are partly State and will affect loads to 2025 and beyond.

Rewritten Questions A35; A43: Has there been an economic cost evaluation for these TMDLs? Will Maryland factor in economic costs into implementation plans and decisions making? Who pays?

Rewritten Question W7: Does the Bay TMDL trump existing TMDLs for nitrogen, phosphorus, and sediment? Which should be followed, local existing TMDL or the Bay TMDLs?

Comment: How is the EPA going to deal with hearing all the constituents of the Bay watershed participating in the remediation for the source points in proportion to their contributions? (Commenter left and question was read by moderator.)

A51: What do you foresee the role of small watershed or organizations to be in restoration activities? How will these organizations access funding for these kinds of projects?

A49: I can see that the modeling has gotten more sophisticated, as well as your understanding of the impacts of a pound of Nitrogen or Phosphorus. So, it's probably credible that you can develop TMDLs that are technically accurate. But what has changed that will give us confidence that implementation will actually be effective this time? I have a very strong feeling of déjà vu. Have we not been down this road over the past decade? What penalties does EPA have at its disposal that will usually make it happen?

W11: How will the oyster restoration program be affected by the TMDL implementation program? Does oyster restoration wait until positive impact from TMDL are realized?

W10: Will a cap load maintenance plan be developed and if so, when and how will it relate to the TMDL? How will you track accountability?

W9: What sort of regulations does MDE foresee will be imposed upon agriculture to help meet the TMDL goals?

A11: How do we ensure that these targets do not work against smart growth goals by limiting the ability of towns and cities to grow as compared with rural areas that may have less Nitrogen and Phosphorus loads?

W15: Will Maryland Department of Agriculture's nutrient trading program roll out with the draft TMDL?

A18: Developed areas increase at about 1% per year and is subject to the most stringent pollution control standards in the US. Reduction in pollution from developed areas must come from the existing developed areas that have not achieved reductions to meet the goal; stopping permits for new development will not solve that problem. Make sure that the penalty will be directly related to the problem.

A23: It has been established that the majority of nitrogen and phosphorus comes from agricultural sources. Currently, no credit is given to restoration of agricultural sources of pollution. Why are these not targeted and by lack of credit, discouraged?

W16: Is the EPA Chesapeake Bay Program set up to be able to give presentations to local planning commissions? I write from Frederic County and know that such a presentation – one that highlighted the importance of asking with each project consideration – what the TMDL for nitrogen, phosphors, and sediments would be? Even if the answer isn't known or clear at least we would be starting to ask the

questions and searching for answers. Project approvals could be made contingent upon the answer at some point.

W13: Can a moratorium on growth and development within the watershed be established based on a negative response or lack of improvement?

A45: Will EPA provide flexibility for permit holders? In many cases it is more beneficial to the environment to retrofit an existing structure to better prevent runoff into the Bay instead of holding current constructions activities to higher standards that may be technically excessive or even impossible to meet in urban areas due to physical space constraints.

W6: On the Maryland Health Air Act, is the number out of the air, or out of the deposited pollution?

A2a: Where can we find electronic copies of all these slide presentations?

Questions Submitted

Questions Submitted (but not answered):

Full Question W3: Does EPA plan to attach any federal funds to this executive order that would reward performance when goals are achieved or exceeded? The Great Lakes Program had federal money from projects and programs (BMPs) attached to it, why not the Chesapeake Bay program initiative? Please explain. Thanks – Dan Wilson

Full Question A23: Watershed restoration component focuses on removing effective impervious area. It has been established that the majority of nitrogen and phosphorus comes from agricultural sources. Currently, no credit is given to restoration of agricultural sources of pollution. Why are these not targeted and by lack of credit, discouraged? Will EPA force the revision of these permits?

A36 Original Question: Is there a TMDL for sediment? What is the process for allocating loads?

A35 Original Question: Does the State of Maryland have a plan to factor in economic cost into decision-making/choices as well as effectiveness?

A2b: Question for Rich Eskine: It may be appropriate to aggregate the minors at the basin level, but when we drill down to the local Phase II WiPs, won't these need to be disaggregated, at least to the 8-digit watershed level.

A25: After reviewing Maryland's Searchable Integrated Report Database, I saw there were seven category 5 listings for Aberdeen Proving Ground, but some with the same basin code. Are they listed separately by cause?

W14: What are the consequences for not meeting two-year goals?

A42: You said that the total load to the Bay may change. What would cause that to change? When will the loads be final? How is the total load set and who is responsible for it?

W24: Will meeting with local governments happen in a public hearing setting or will EPA meet with the government in their government meeting?

W8: Will forest protections count both toward Bay protection targets and climate change measures being enacted by EPA (e.g., carbon sequestration)?

A7: The answer to the urban stormwater retrofit cost was too simplistic. Under Maryland's new stormwater law, redevelopment of stormwater management can provide a great impact. Someone should address this.

A53: Growth is subject to the most stringent stormwater management controls in the U.S. Why is growth compared to existing developed areas without regard to the stringent requirements? (David O'Bryan)

W18: Do the current nutrient loads in the Chesapeake Bay TMDL include future allocations (i.e., are they based on current land conditions or built out)?

W25: Does the design capacity of a wastewater treatment plant set the TMDL limits or are there some other factors that make the determination?

W23: How do the numeric milestones translate into tangible results within the waterways that the general public can see and remain committed to?

W22: How can the WIPs affect the development and implementation of traditional watershed plans?

W19: I heard that the loads will be assigned to the county level. Will Maryland allocate loads to municipalities or will the counties do that? Is it different for a phase II MS4, rather than an unregulated municipal? (Tiffany Wright)

W21: Who will be responsible for the monitoring program?

W20: Prince Georges County has a number of OSDS in the Patuxent River Watershed and/or in the Critical Areas, and has implemented the Bay Restoration Fund Program for septic system upgrades. Will the Federal Program be able to subsidize the local and state program if they are unavailable to continue the fund?

W5: What year(s) of DMR and water quality data is used for modeling and nutrient reduction calculations?

A50: It appears you (EPA & MDE) are initially focusing on the biggest sources of nitrogen, phosphorus and sediment – that appears perfectly logical – but if the goals aren't met, the focus appears to shift to prevention of new development through permit restrictions. This appears perfectly illogical because new development is known to be a very minor source of the problem.

A44: Do the red and blue areas on the nitrogen and phosphorus effect maps account for salinity and natural or tidal flushing of the lower versus upper part of the Bay water? Although I am no expert on salt water or brackish water impacts on nutrient loading, or tidal flushing, it would appear to show a pattern on the maps.

A15a: Looking at EPA's charts, agriculture and WWTPs are the most significant contributors. Why are they not the primary "correction" targets?

A15b: What are CAFOs?

A9: Similar to how the EPA's methodology for distributing the loading goals across the States, will the largest polluters be asked to make the largest reductions in loading?

W1: Why do the impacts of the nutrients on dissolved oxygen vary geographically?

A38: These TMDLs are all for nitrogen and phosphorus. I am from the Anacostia, which needs more TMDLs concerning pesticides. Are those TMDLS next? When will we see those? (Dr. Harriett Phelps, University of DC)

W17: How will this affect small point source dischargers (POTWS <0.5 MGD) that currently do not have their nutrient loading requirements? One presenter indicated that they would be "addressing collectively." How so? During the meetings with local governments (particularly counties) will MDE encourage consolidation (aka pumping small town's wastewater to an existing ENR facility) as an alternative to upgrading every small treatment plant?

A47: Will MDE be adopting TMDLs as regulations in order for them to be binding under the Maryland Administrative Procedures Act?

A19: Maryland TMDL goal is to reduce nitrogen inputs by 41.01 million pounds. How was this number derived? However, this doesn't seem to match the previous numbers in the presentation if we are reducing discharge by 77 million pounds (from 284, reduced already or currently 7 but need to be 200). If Maryland is 20% of the watershed, then the Maryland goal should only be 15.4 million pounds. 41.04 is three times that amount. Why is this?

A20: This is a complex innovative program and will be used as a precedent for many areas of the rest of the country that will have to develop nutrient reduction programs. This presentation alone is difficult to digest in a couple of hours. We would like more time to be involved in the draft prior to its publishing – eight months is a long time to wait – then we only have 60 days to comment! You plan to finalize by the end of 2010. That is not much time to digest and implement changes as a result of the comments. We would like to see more transparency during the process. More public forums, educational opportunities, more outside scientists, engineers, developers to provide input on this process and determine what is doable and ultimately sustainable.

A39: As a homebuilder/developer, and shareholder in this process, I highly encourage MDE to involve all stakeholders in the development of the WIPs and develop the most cost-effective plan to meet the TMDL loading goals. There needs to be a fair and equitable distribution of requirements across pollution sources based on the priority of pollutant (nutrients, biological, sediment, etc.) and pollution loadings (current – agriculture, WWTP, development). There also needs to be a separation between existing development without stormwater management and new development in order to prevent further/unbalanced economic hardship to one industry.

A10a: EPA has stated that the states will take the loading allocations provided by EPA and develop Watershed Implementation Plans that include actions and controls for local partners. It is expected that entities such as MS4s will be required to implement measures to meet loading reductions that are assigned to them through their stormwater permits. Can these requirements also be expected for non-traditional MS4s (who have an NPDES stormwater permit) such as airports, universities, etc. or will these reductions be made at a larger scale (i.e., the county level)?

A10b: In the state of Maryland there are a number of phase II MS4s (cities) that are located within phase I MS4s (county). EPA has stated that allocations will be made on the county scale as well as the water segment scale. Because these nested phase II MS4s are located within a county can it be expected that the county will be responsible for any implementation of measures to meet loading reductions rather than additional requirements trickling down to these nested MS4s?

W12: Will there be EPA consequences for not meeting the Baltimore Harbor nutrient TMDL despite the State's acknowledgement that it cannot be achieved in the shipping channel?

A48: Question for Bob Koroncai: Once consequences are implemented, is EPA going to take over? How is EPA going to achieve the goals?

A4: If Prince George's doesn't meet its targets, and the development segment in that county is meeting their share, will the development segment for Prince George's suffer the consequences? (Tom Farasy, Maryland National Capital Building Industry Association)

A29: When will Mattawoman's TMDL be enforced? Mattawoman is listed on EPA's 303(d) because of excess nutrients and loss of living resources. EPA has approved a TMDL for nitrogen and phosphorus that calls for a 40% reduction. Yet the Mattawoman Creek Watershed Management Plan authored by the Army Corps of Engineers projects 50% based on Charles County's growth plans.

A28: Mattawoman Creek in Northern Charles County is one of the most productive creeks in the State of Maryland. It has four bodies of Tier II streams. It is also in danger of impairment due to development. But it has also got TMDLs 40% over what is recommended for phosphorus and nitrogen. This was established four years ago. What will be done to reverse Mattawoman's TMDLs? If we cannot save a creek like Mattawomans, how can we save the Bay? Meredith Sweet, Mattawoman Watershed Society.

A43: Has EPA evaluated the costs of nitrogen and phosphorus removal by sector (i.e., agriculture, WWTP, development)?

W7: Does the Bay TMDL usurp TMDLs already established for total nitrogen and total phosphorus by the state in waterways?

Comments

There were no public comments at the Baltimore, Maryland meeting.